Communicating science

Helena Ledmyr, PhD

@Helena_LB

INCF, FORSKOM, Real Scientists, Molecular Frontiers

- Sci-comm then and now
- Who are you talking to?
- Channels
- Modalities
- Resources

Then and now

PRENUMERERA

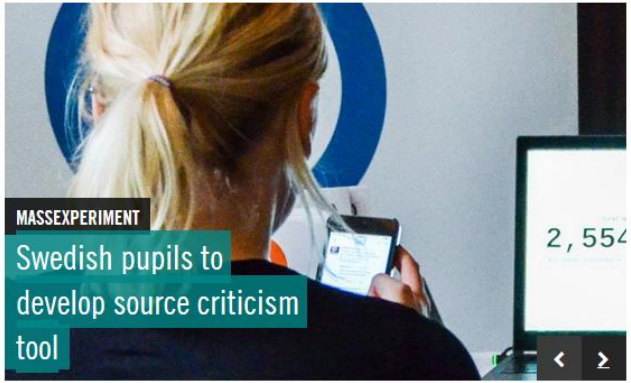
Besök våra andra sidor

Vetenskap & Allmänhet

KONTAKT | PRESS | BLOGG

Vad söker du?

HEM | OM VA | MEDLEMSINFORMATION | NYHETER | PROJEKT | PUBLIKATIONER | KALENDARIUM | IN ENGLISH



VA (PUBLIC & SCIENCE) PROMOTES DIALOGUE AND OPENNESS BETWEEN THE PUBLIC AND RESEARCHERS

ABOUT VA

VA is an independent Swedish non-profit membership organisation that works to promote dialogue and openness between researchers and the public.

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PARTNERSHIPS

VA is an outward-looking organisation engaged in a number of European projects. Find out about the experience and expertise that we can bring to partnerships.

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PROJECTS

VA carries out many different types of projects, including studies, public engagement activities and advocacy work.

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CONTACT US

VA (Public & Science) has its offices within the Royal Swedish Academy of Engineering Sciences, Grev Turegatan 14, Stockholm.

READ MORE

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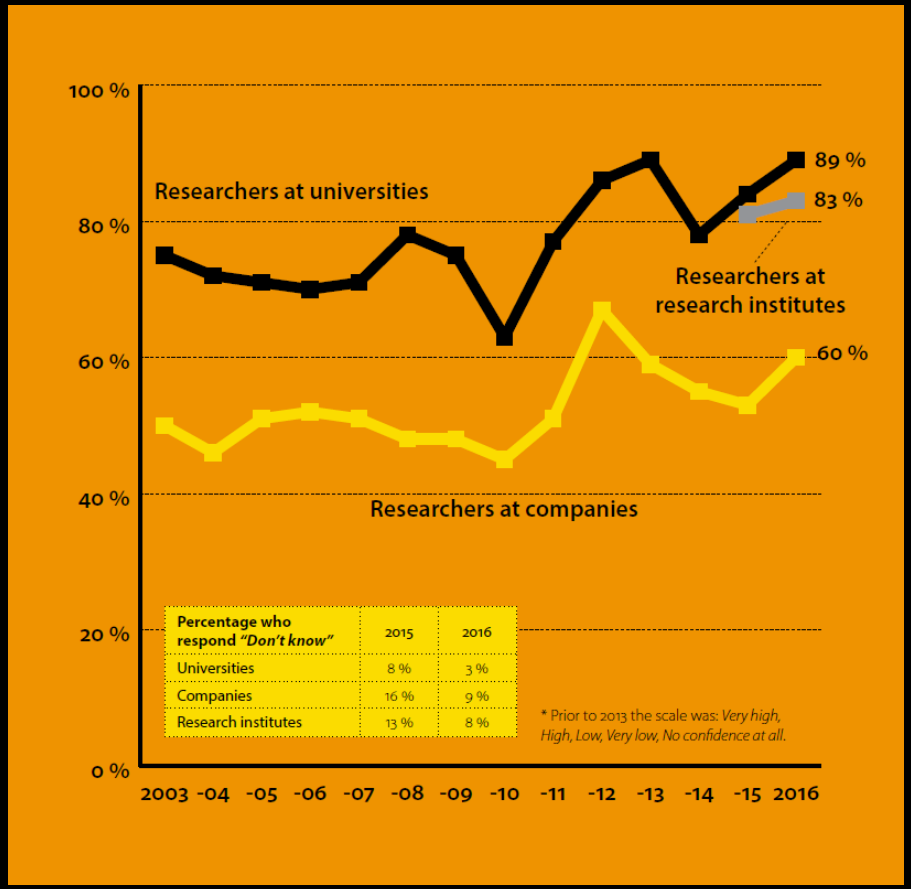


% of public that has fairly to very high confidence in researchers

Science is the systematic search for such knowledge that is independent from any single individual, but that anyone could rediscover or verify.

Pseudoscience is statements not based in science but presented in such a way that gives them the impression of being so.

vof.se
@SwedishSkeptics

News › Science

Mice can be turned into Walking Dead-style zombie killers, scientists discover

Researchers use a laser to activate brain cells that prompt the mouse to hunt and kill anything in its path – crickets, bottle tops, sticks ...

Ian Johnston Science Correspondent | @montaukian | Thursday 12 January 2017 17:11 GMT | 18 comments

Sensationalism, aka clickbait

Interpreti


Binge drinking gene discovered
A BINGE-drinking gene has been identified and it could change the way in which addicts are treated.
Share
Tweet
0
By Daily Star reporter / Published 1st March 2011
Cara Dele-gene: Scientists find genes behind model's bold brows
'Gangster gene' violence claim
Fat kids can blame their genes
Love pies? It's all in the genes
EXPERTS have discovered a "pie gene" that makes people crave fast food.
By Josh Layton / Published 12th December 2008
Love rats: It's all in the genes
SCIENTISTS have discovered a "love rat gene" that affects whether a man is likely to stray.
By EMMA WALL / Published 3rd September 2008
Scientists have finally figured out why your labrador is so fat
Thanks, genetics.

Who are you talking to?

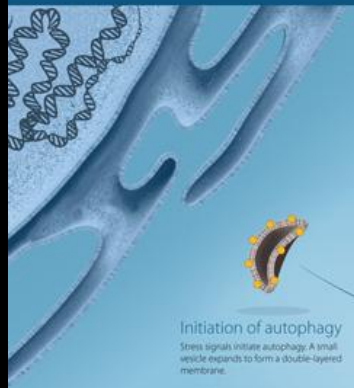
or

Marketing 101

Target groups

Other scientists
Stakeholders
General public
Kids

The Nobel Prize in Physiology or Medicine 2016



Autophagy – recycling in cells

The Nobel Prize in Physiology or Medicine is awarded to Yoshinori Ohsumi for his discoveries of mechanisms for autophagy.

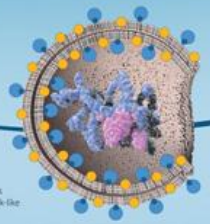
Autophagy, or "self-eating", is taking place inside all cells. Autophagy is a fundamental process for degrading and recycling cellular components, and is used to eliminate damaged proteins and organelles. Autophagy can rapidly provide fuel to maintain the cellular energy supply and building blocks for renewal of cellular components. Autophagy is essential for the cellular response to starvation and other types of stress. Yoshinori Ohsumi identified essential genes and elucidated the underlying mechanisms for autophagy.

Initiation of autophagy

Stress signals initiate autophagy. A small vesicle expands to form a double-layered membrane.

Formation of autophagosomes

Cellular content selected for destruction is enclosed in the membrane, forming a sack-like vesicle called "autophagosome".

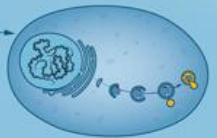


Transport to the lysosome

The autophagosome is transported to a recycling compartment, called the "lysosome". Lysosomes contain enzymes for degradation of biological material.

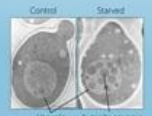
Degradation and recycling

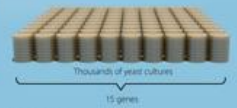
After fusing with the lysosome, the cargo of the autophagosome is destroyed, and the degraded material becomes available for renewal of cellular components, or it can be used as fuel for energy derivation.



Autophagy is a central function inside cells

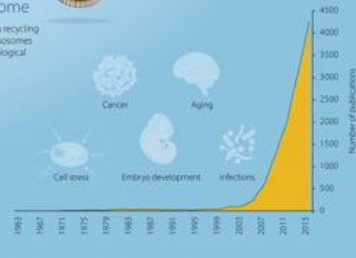
During the 1960's researchers first observed that the cell could destroy its own contents by enclosing it in vesicles that were transported to the lysosome for degradation. Little was known until Yoshinori Ohsumi in the early 1990's used baker's yeast to study autophagy.





Groundbreaking experiments

Yeast cells are relatively easy to study and are often used as a model for human cells. Ohsumi used yeast lacking degradation enzymes in the "vacuole", the yeast cells' lysosome. Autophagy was induced by starving the cells and when degradation was blocked, autophagosomes accumulated inside the vacuole (left image). This provided a simple way to study autophagy. Ohsumi then screened thousands of yeast mutants and identified 15 autophagy genes (right image). His further studies revealed the molecular machinery underlying autophagosome formation.

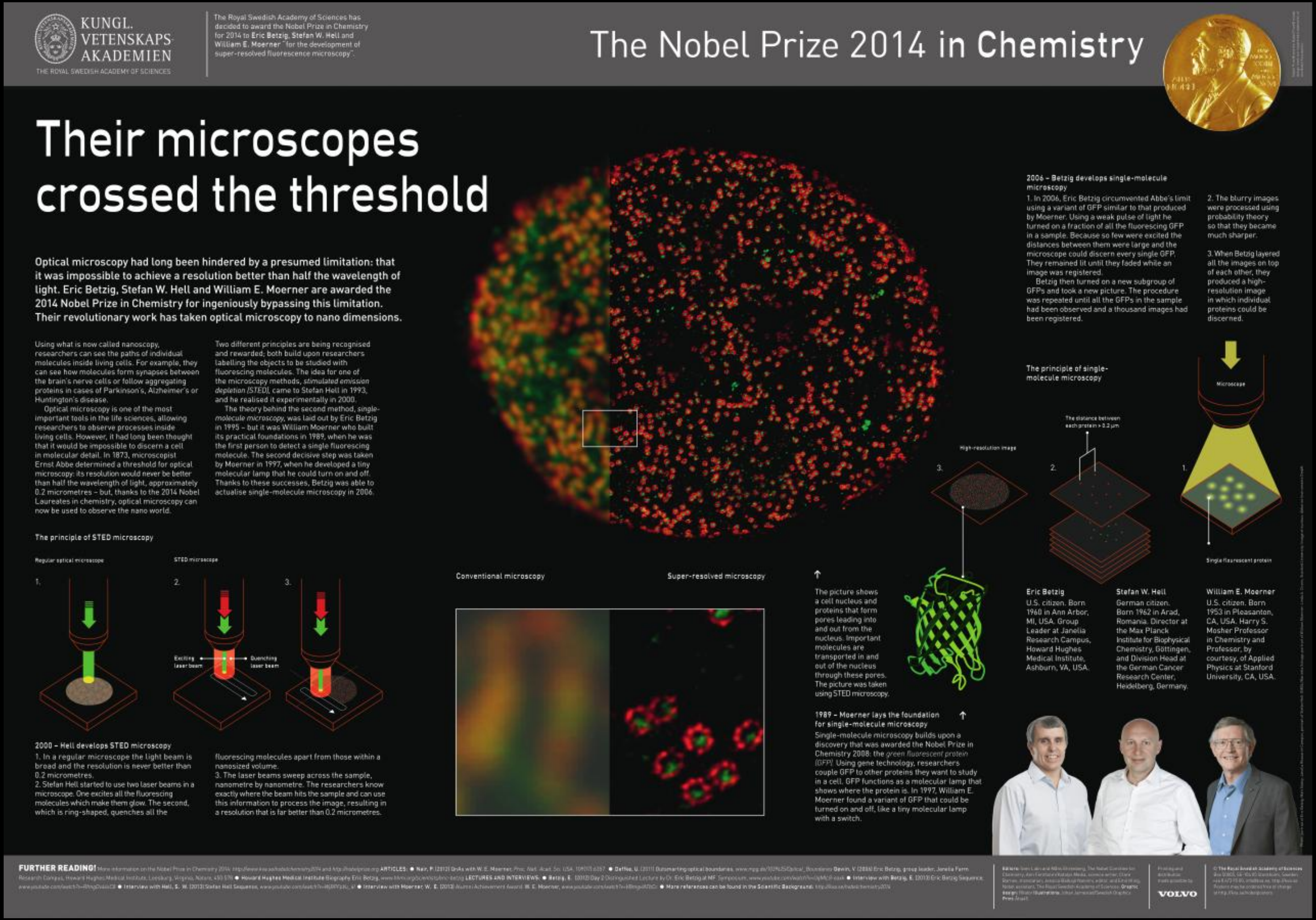


Autophagy in health and disease

Ohsumi's initial breakthrough was published in 1992. Since then, the research field has expanded dramatically. We now know that autophagy controls many physiological functions. For example, autophagy can eliminate invading intracellular bacteria and viruses. Cells use autophagy to degrade damaged proteins and organelles, a quality control mechanism that is critical for counteracting negative consequences of aging. Disrupted autophagy is associated with many diseases, including cancer, type 2-diabetes and age-associated neurodegeneration.

Nobelförsamlingen
The Nobel Assembly at Karolinska Institutet

@vetenskapsakadkva.se



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incf

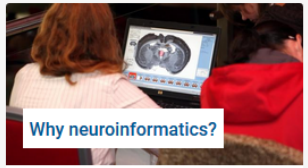
Resources News About us Collaborate search

Software Carpentry workshop 9-10 Nov

We will offer a Software Carpentry workshop at SfN in Washington DC. Space in the workshop is limited, so apply now!

Google Summer of Code

For the 7th consecutive year INCF is participating as a mentor organization for Google Summer of Code, a program that offers students stipends to write code for open source projects.



Why neuroinformatics?

How to handle your research data for collaborative neuroscience?

Join the INCF community!

INCF helps scientists coming together as a community to resolve issues and deliver solutions.

Need seed funding for your collaborative project? Learn more

"The only way we'll ever understand something as complex as the brain is through collaboration"

Tom Johnstone

Professor and Head of Brain Imaging at University of Reading, United Kingdom

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MOLECULAR FRONTIERS

Started in 2006, Molecular Frontiers operates as a non-profit organization, hosted by the Royal Swedish Academy of Sciences. Its Scientific Advisory Board, a group of eminent scientists including many Nobel Prize laureates, represent expertise from a wide range of molecular science disciplines

HOME | ABOUT | SYMPOSIA | ACTIVITIES | PEOPLE | PARTNERS | CONTACT

Inspiring public appreciation of molecular science globally

@molfrontiers
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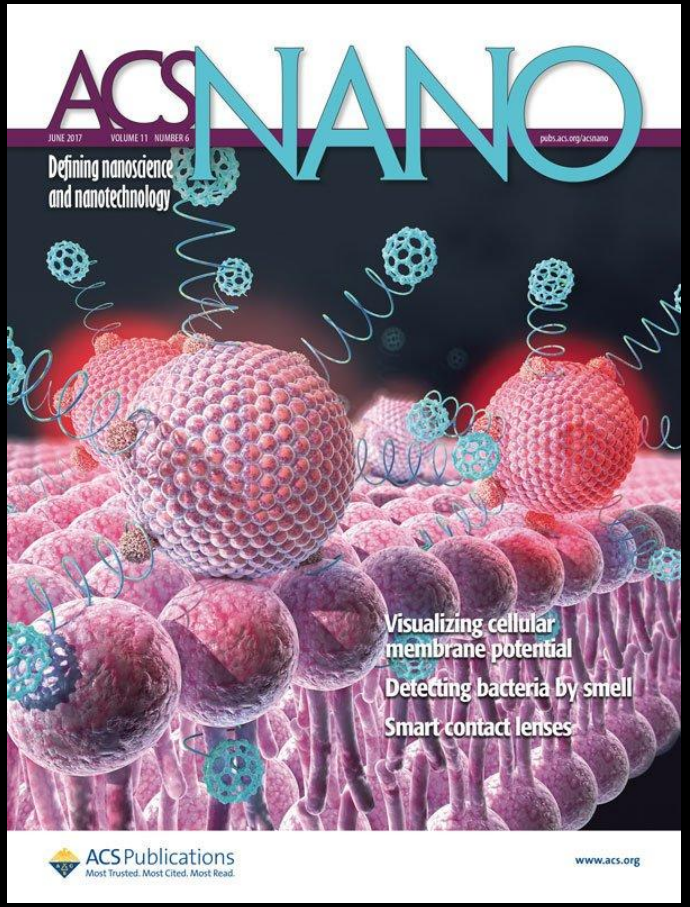
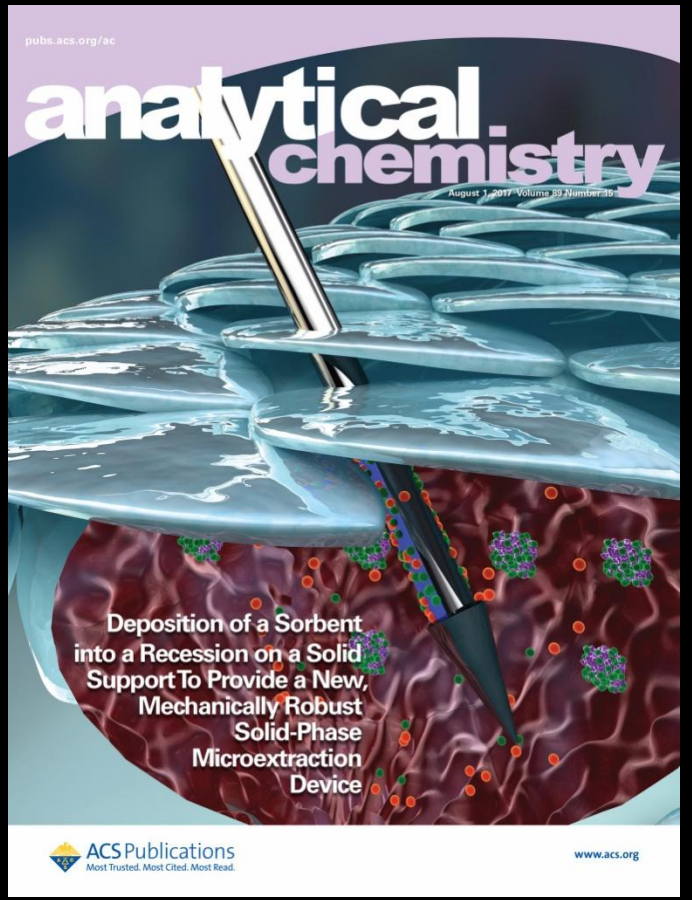
Modalities

In person
Text
Video
Citizen science
Visuals





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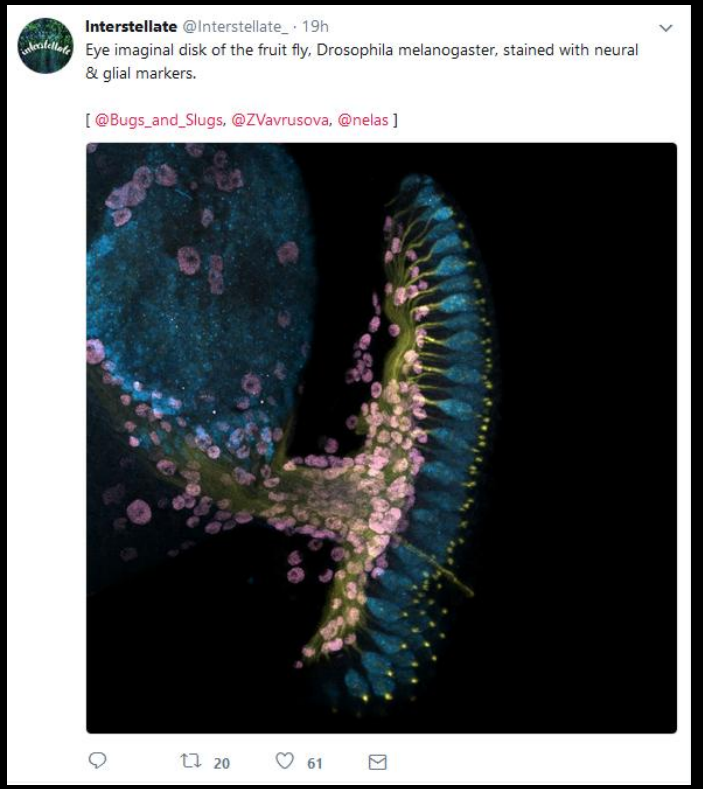

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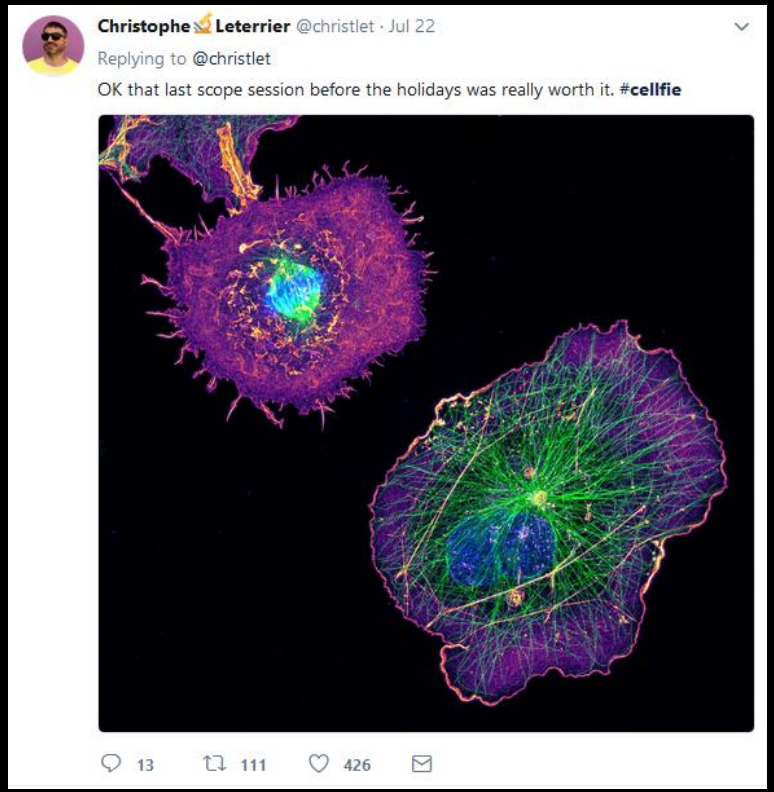
#sciart

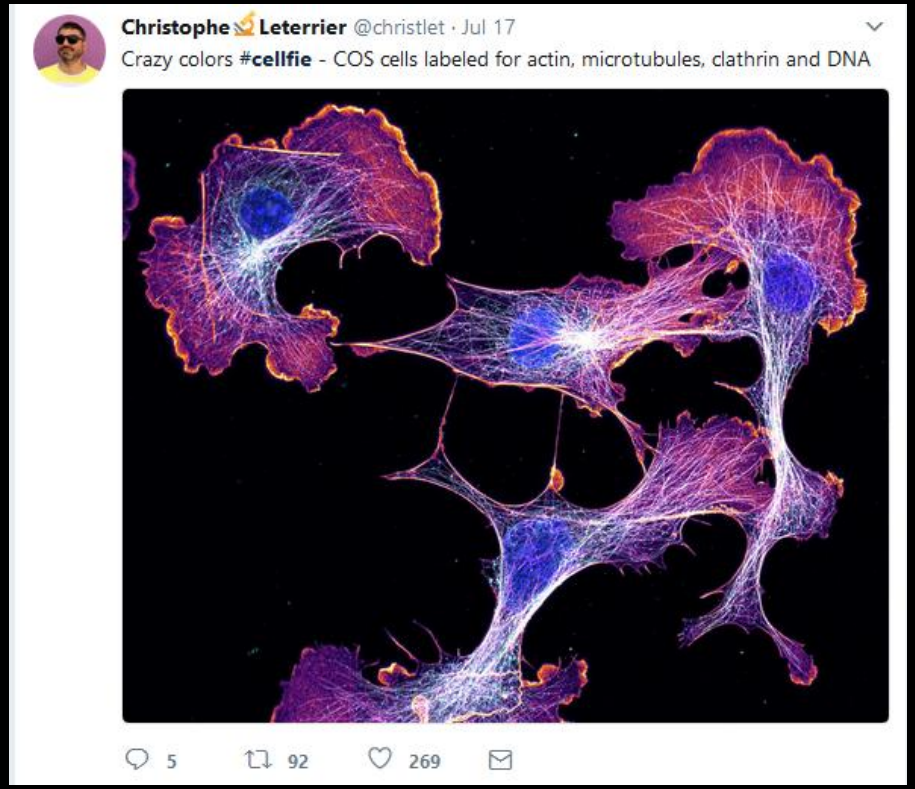
@interstellate_
interstellate.com


Rebecko @leopardrebecko · Jul 20
Ventricular lining cells of the gecko hypothalamus are so pretty I had to post a #cellfie
8
108
261

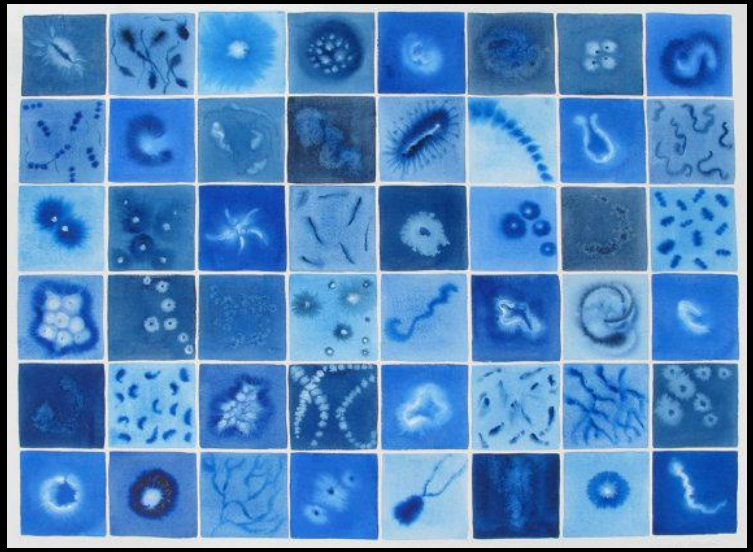

Ryan O'Toole @OTooleRJ · Aug 1
One of my favorite images I've ever taken. Simple cytosolic GFP, complex neuron...
Taken on an @OlympusLifeSci spinning disk! #cellfie
2
6
49

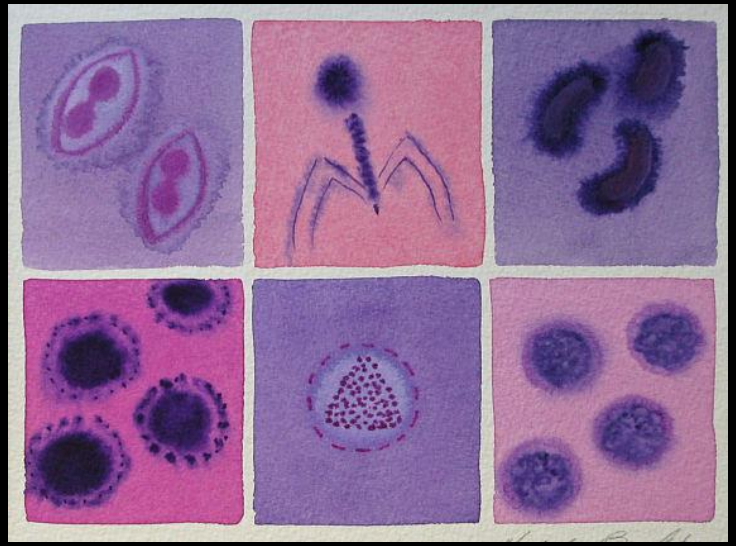
#cellfie


Christophe Leterrier @christlet · Jul 22
Replying to @christlet
OK that last scope session before the holidays was really worth it. #cellfie
13
111
426


Christophe Leterrier @christlet · Jul 17
Crazy colors #cellfie - COS cells labeled for actin, microtubules, clathrin and DNA
5
92
269

#cellfie





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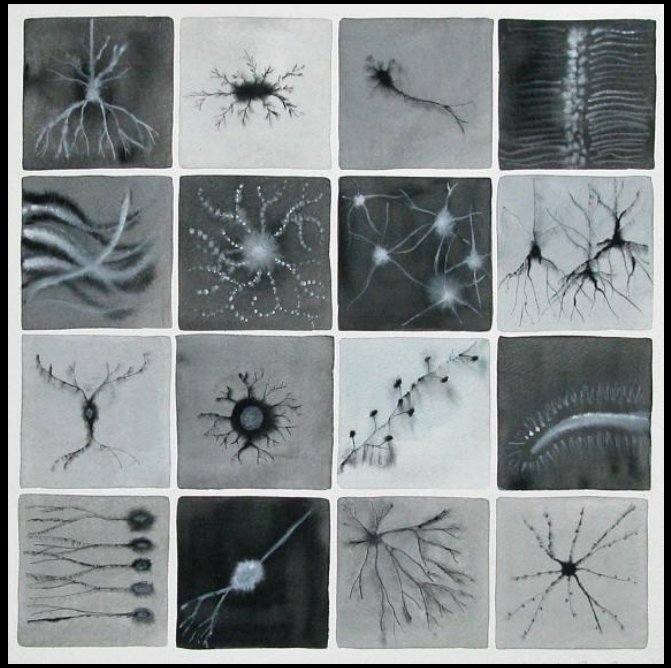

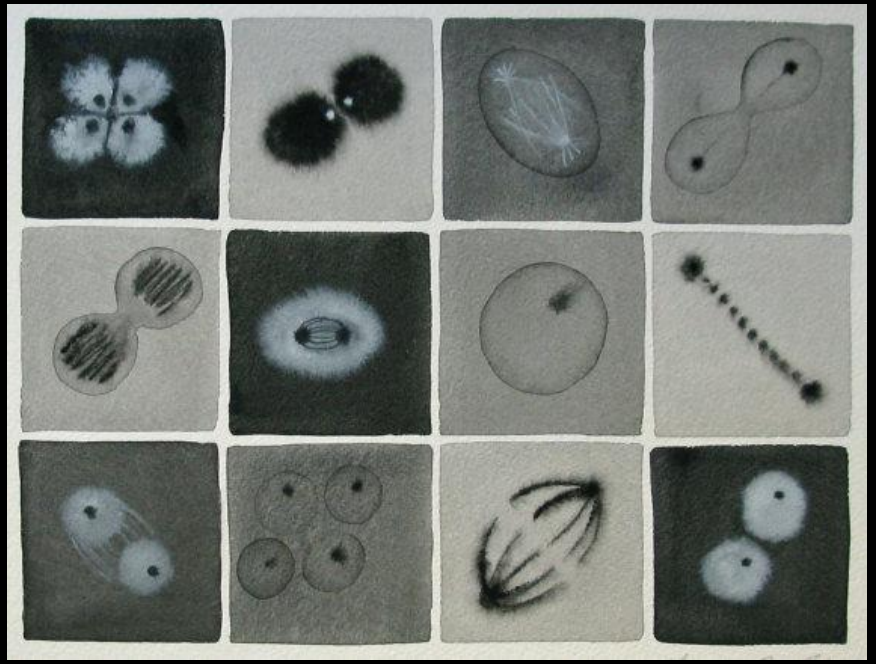

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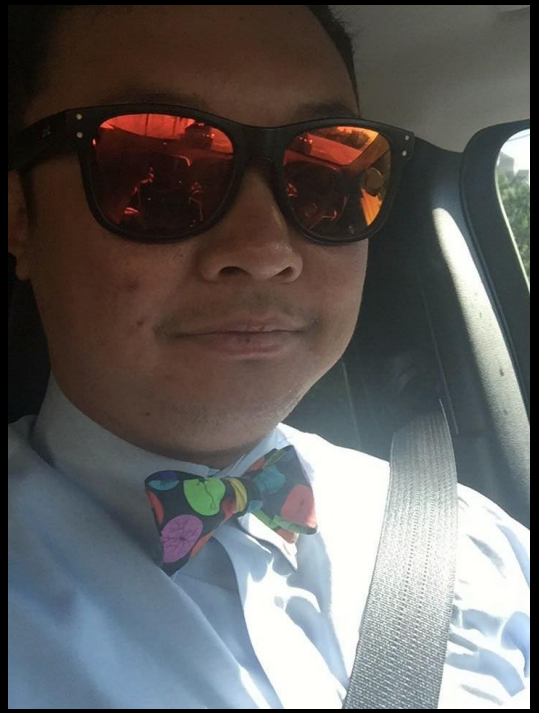

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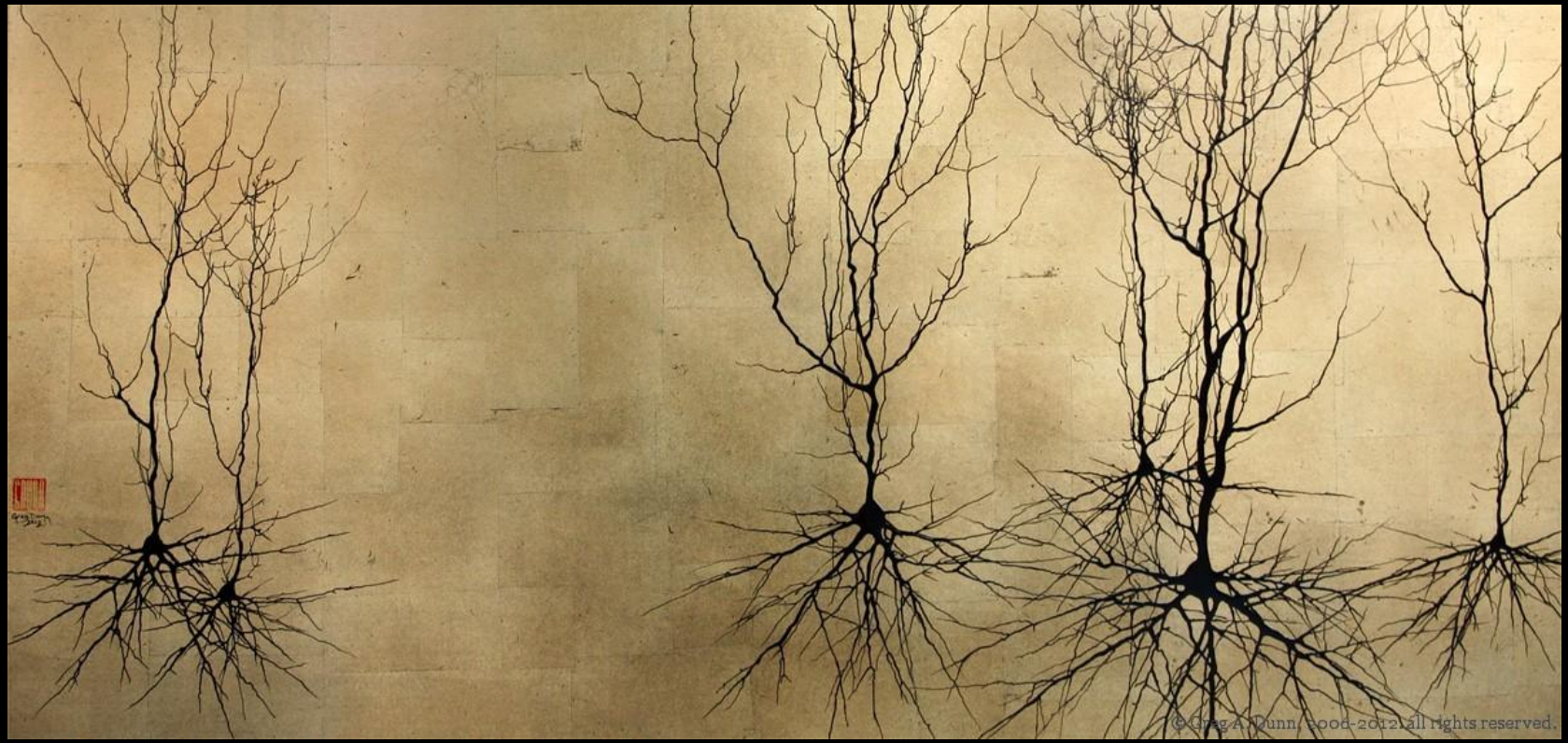

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gregadunn.com

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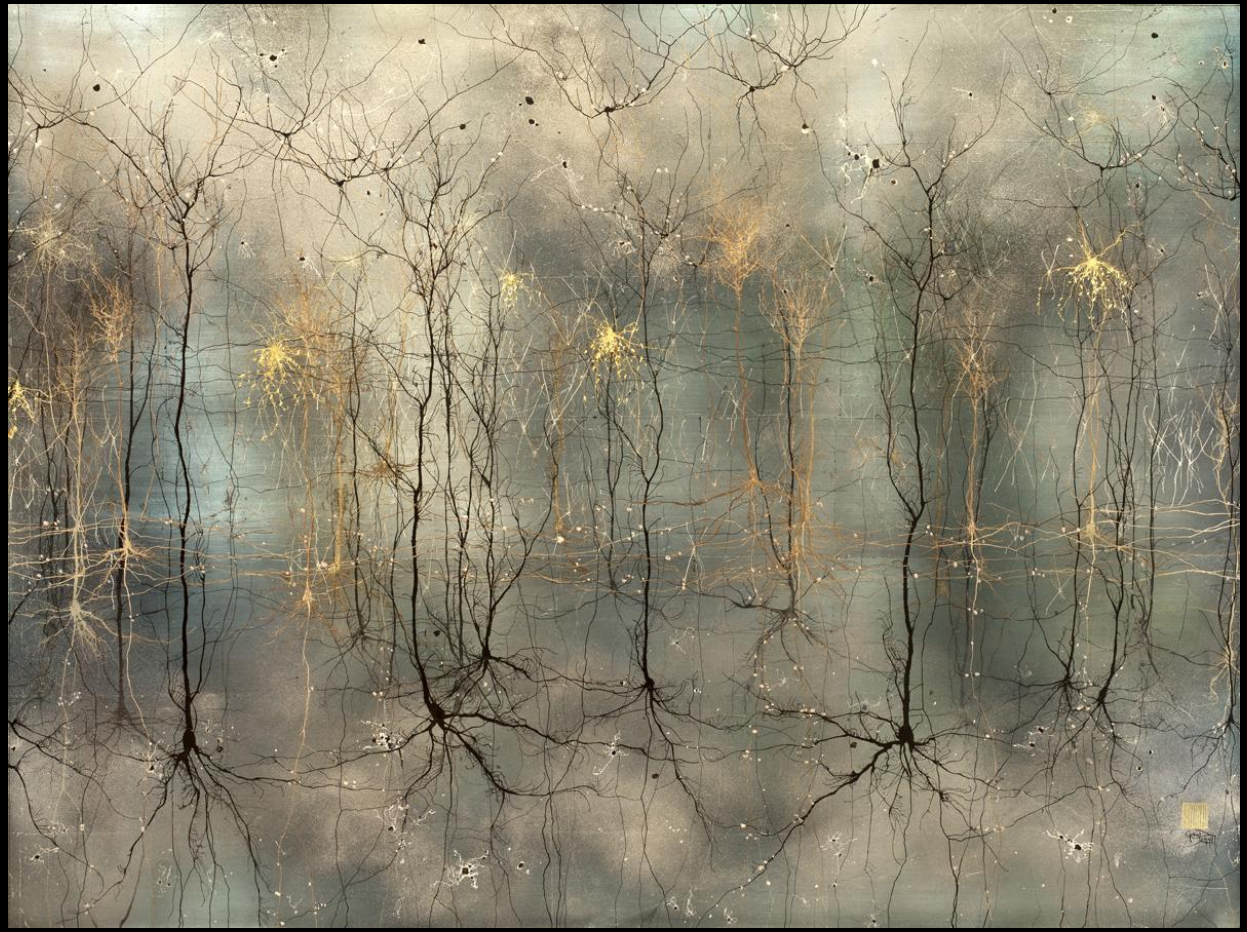

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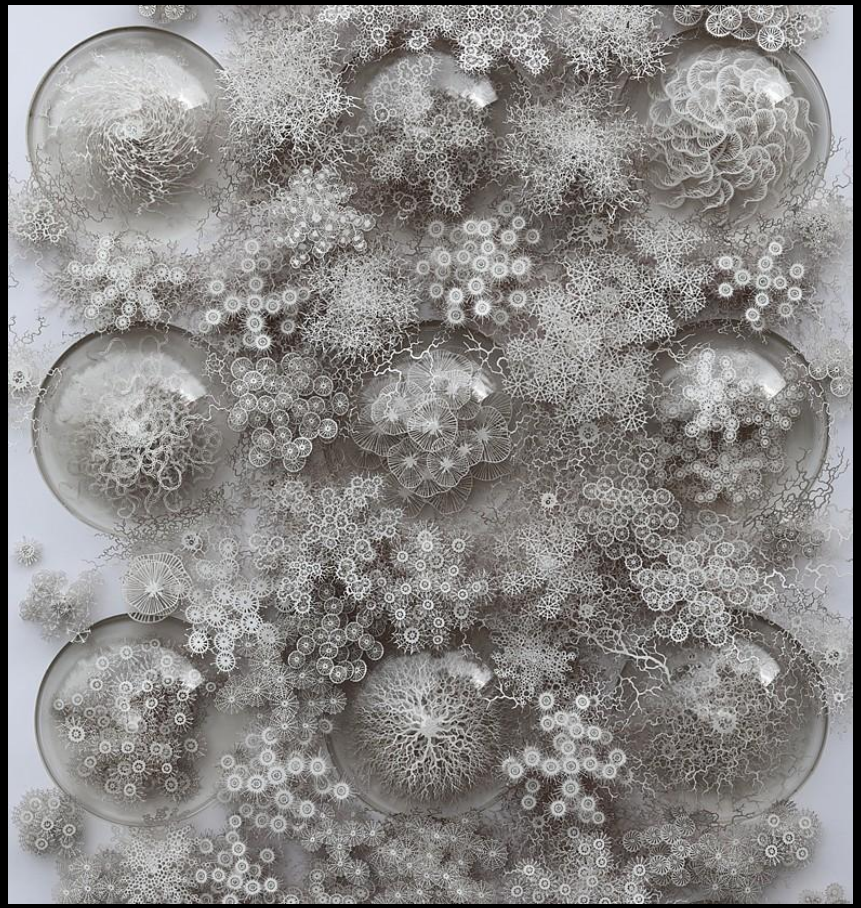

roganbrown.com

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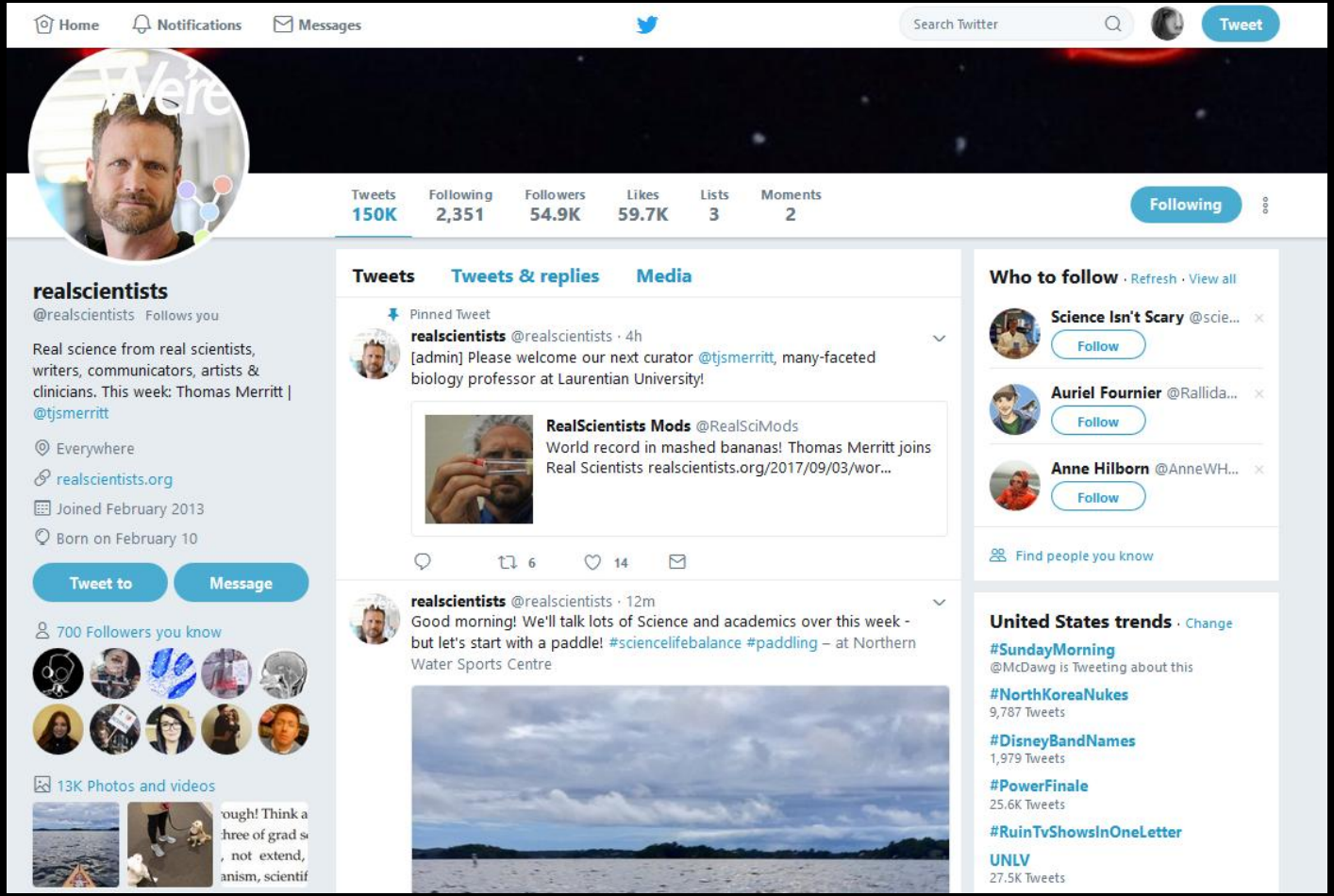
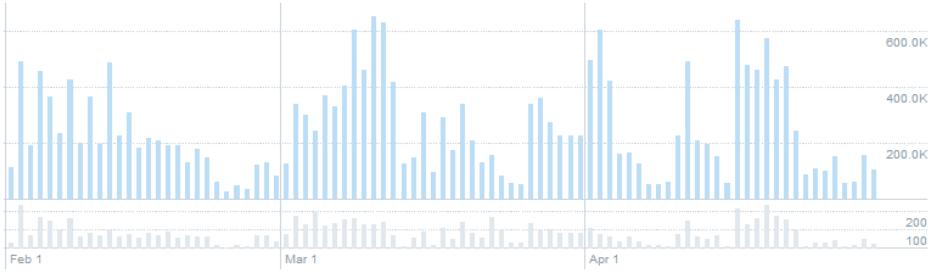
Channels

In-person events
Popular science journals & blogs
TV, YouTube
Social media



@realscientists
realscientists.org
#rocur
#scicomm

Your Tweets earned **22.4M impressions** over this **89 day** period



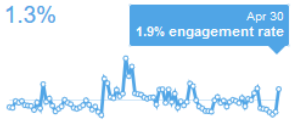
YOUR TWEETS
During this 89 day period, you earned **252.1K impressions** per day.

Tweets | Top Tweets | Tweets and replies | Promoted

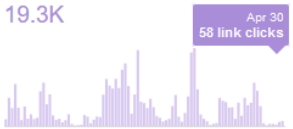
	Impressions	Engagements	Engagement rate
realscientists @realscientists · Apr 1 We assume everyone pulls the same weight in service and mentoring. But do we ever really check? UMass did. They found distinct diffs pic.twitter.com/0ayxd7H8ha View Tweet activity	128,684	17,846	13.9% Promote
realscientists @realscientists · Mar 5 Hi! I'm Nancy (@SciBugs) and I'm an Entomologist living in the Cloud Forest of Ecuador in the @Maquipucuna Reserve. pic.twitter.com/a8ftduPAXE View Tweet activity	107,716	9,231	8.6% Promote
realscientists @realscientists · Mar 7 People ask me why do I do #facebug. Why do I put giant bugs on my face? It helps me do #SciComm (Megaloblatta spp) pic.twitter.com/m2Kpi0iwJt View Tweet activity	99,900	23,470	23.5% Promote
realscientists @realscientists · Apr 10 Yes! In fact the night the last plane isolates the South Pole station for the winter the station watches The Thing as a bonding experience twitter.com/alexsm10000ft/… View Tweet activity	92,852	2,053	2.2% Promote

Engagements
Showing 89 days with daily frequency

Engagement rate
1.3%

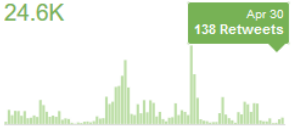


Link clicks
19.3K



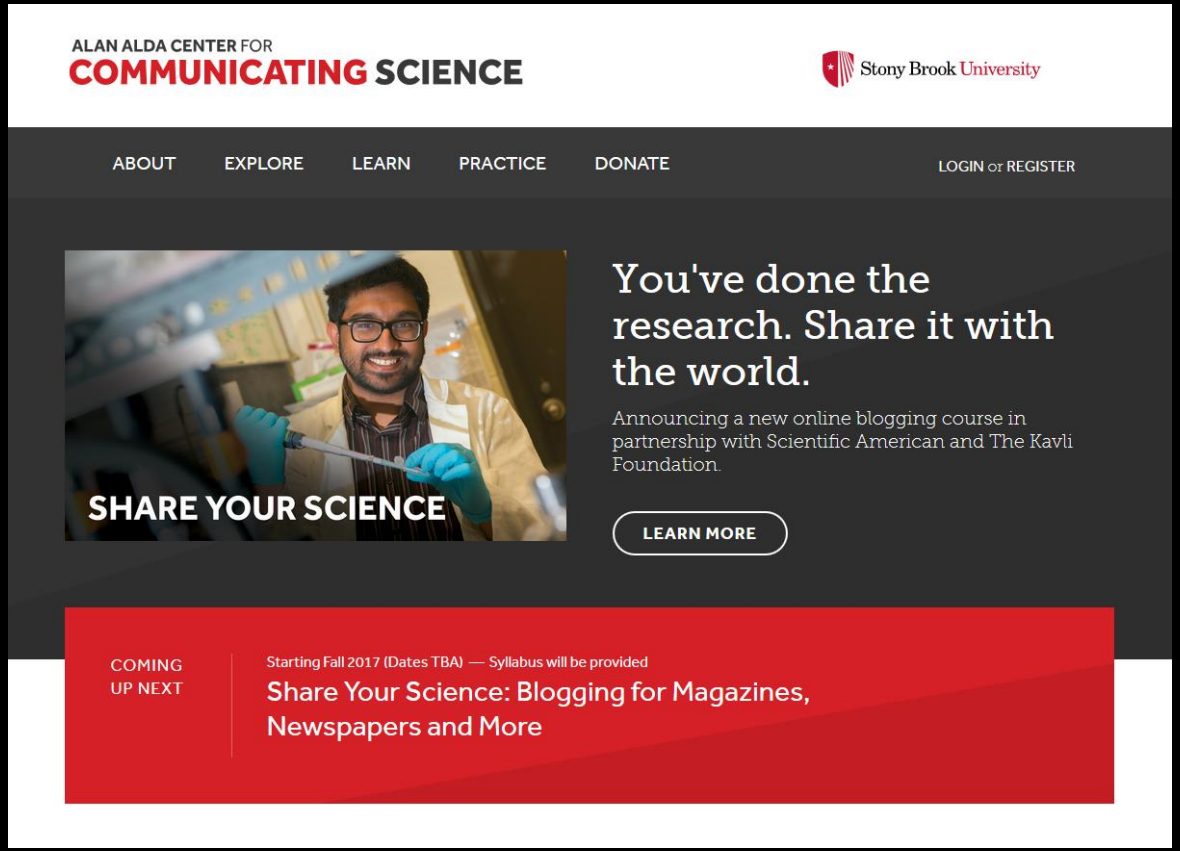
On average, you earned **216 link clicks** per day

Retweets
24.6K



Resources

Online courses
Networks
Competitions
Curate Real Scientists!



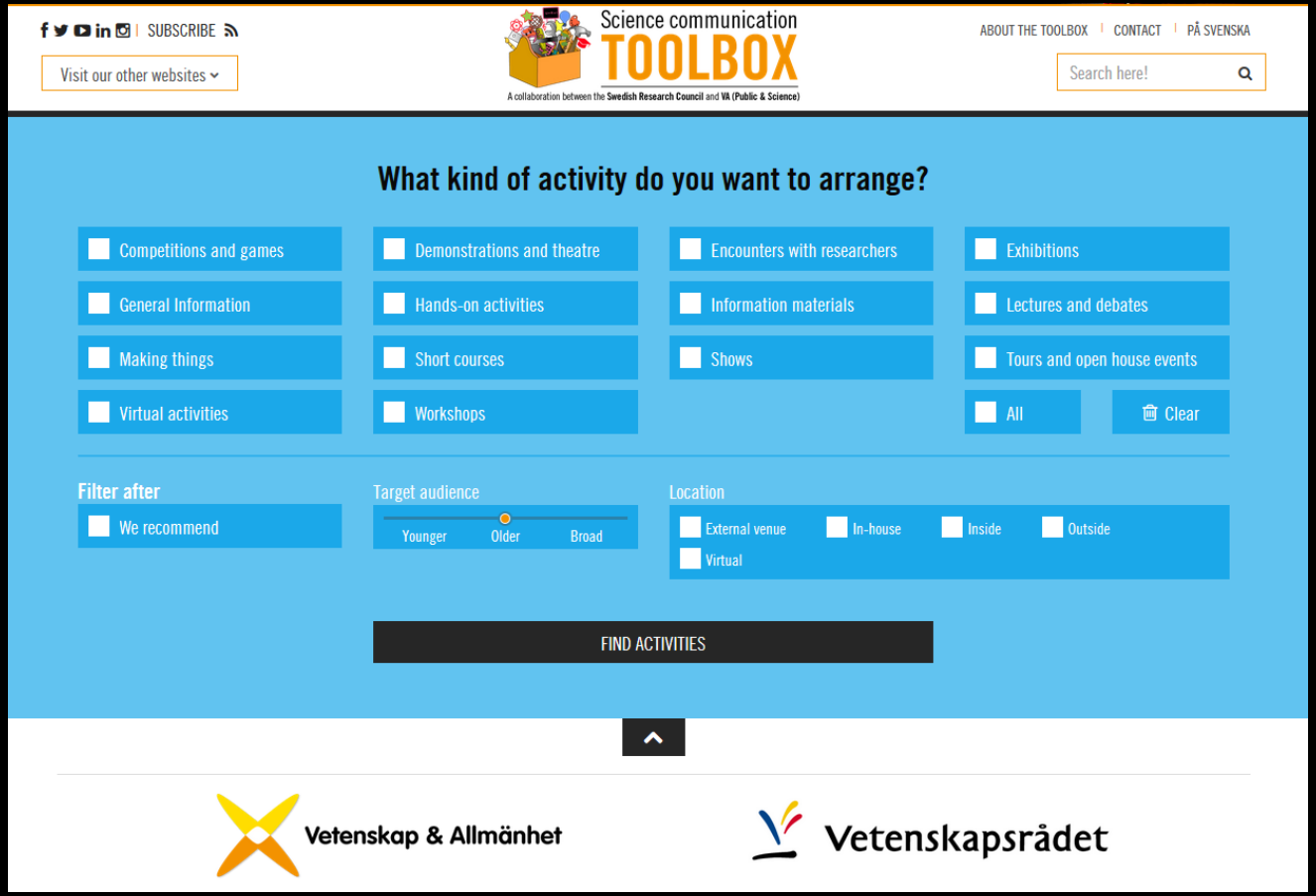
"Science and art can really help each other, especially when it comes to science communication“ - @alanalda

aldakavlilearningcenter.org

RESEARCHERS' GRAND PRIX

Researchers' Grand Prix is a national competition that was run for the first time in Sweden in 2012. Researchers are challenged to make a four-minute presentation about their research that is as captivating and educational as possible. The audience and an expert judging panel select the winner.

Photo from The final of the 2014 Researchers' Grand Prix.



scicommtoolbox.se

Forskom

Sveriges Nätverk för Forskningskommunikation

Hem

Välkommen till Sveriges nätverk för forskningskommunikation!

Strategier, kanaler och verktyg som används för att kommunicera vetenskap är i ständig förändring. Kommunikationsteam i forskningsorganisationer över hela världen utvecklar ständigt nya kreativa idéer och innovationer. Tack vare kreativ forskningskommunikation syns och hörs forskning bättre och nås av befintliga eller nya målgrupper, som i sin tur har möjlighet att agera.

Men att kommunicera forskning innebär också stora utmaningar – allt från att få forskningsvärlden att till fullo värdera kommunikationsarbetet till att hålla jämna steg med de snabba förändringarna som sker just nu i kommunikationsteknik och praktik.

Är det inte en fantastisk idé att ha ett nätverk för att dela de bästa idéerna och diskutera konkreta åtgärder för utvecklad och förbättrad forskningskommunikation? Ett nätverk öppet för alla som arbetar inom området, och som drar nytta av kunskapen hos de ledande kommunikatörerna och forskarna från Sverige, Skandinavien och utomlands.

Om svaret är "ja", då är Forskom något för dig!

Läs mer om oss här.

FORSKOM

FORSKOM ON TWITTER

Tweets by @forskom

FORSKOM
@forskom

Dagstidningskrisen tillfälligt avstannad/@NikaMoberg

Aug 29, 2017

FORSKOM
@forskom

Interesting symposium! Hoping that it will explore ethics & effectiveness of

@forskom
forskom.org

Curate Real Scientists!

Effective science communication happens when we listen and connect. It happens when we use empathy. Communication is headed for success when we pay more attention to what the other person is understanding rather than focusing solely on what we want to say.

- Alan Alda

tl;dr

Effective science communication is a two-way street.

- Helena Ledmyr